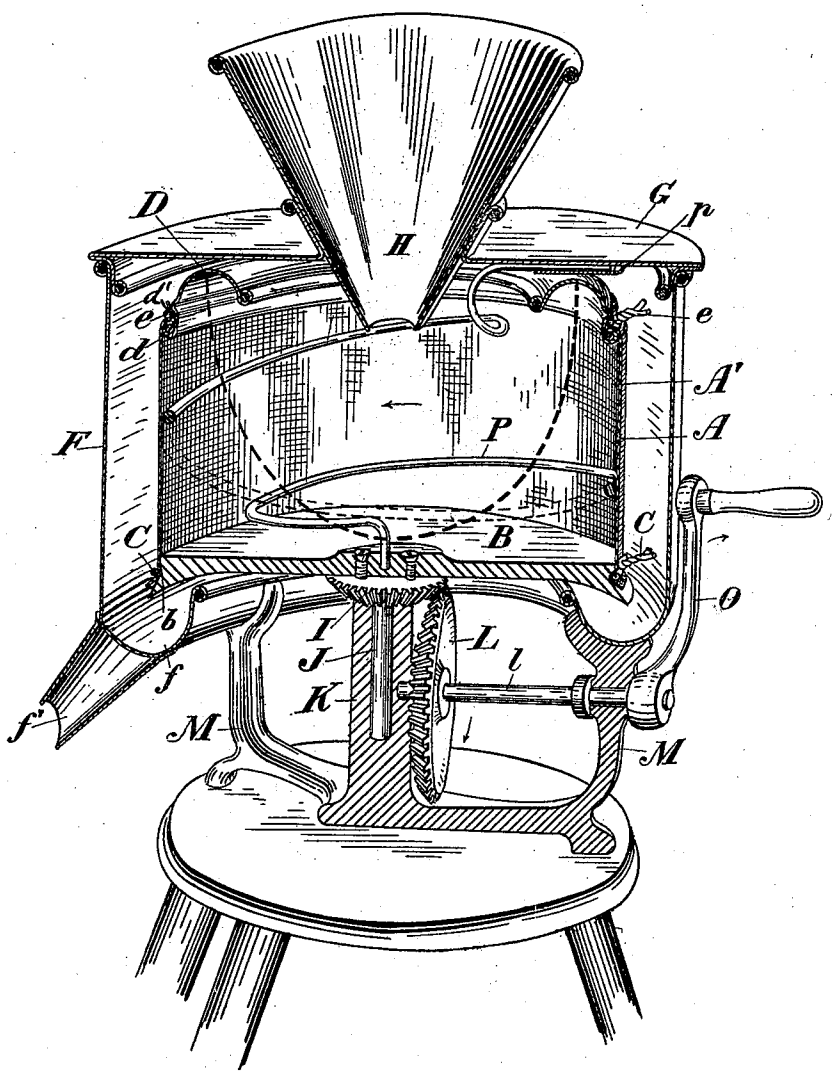
(No Model.)

C. J. McLENNAN.

STRAINER FOR MIXED PAINTS.

No. 510,546. Patented Dec. 12, 1893.



Witnesses.

W. J. Wilson

E. R. Case.

Inventor:

C. J. McLennan

by Fetherstonhaugh & Co.

Atty.

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES JOHN McLENNAN, OF TORONTO, CANADA.

STRAINER FOR MIXED PAINTS.

SPECIFICATION forming part of Letters Patent No. 510,546, dated December 12, 1893.

Application filed August 18, 1893. Serial No. 483,486. (No model.)

To all whom it may concern:

Be it known that I, CHARLES JOHN McLENNAN, master painter, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Strainers for Mixed Paints, of which the following is a specification.

My invention relates to improvements in strainers for mixed paints, and the object of the invention is to provide a means whereby the paint may be effectually and quickly strained so as to remove from it all foreign matter and reduce it to a uniform consistency, and it consists essentially of a cylinder having a closed bottom and an open top, the cylindrical portion being formed of a wire mesh or cloth and being designed to be rotated upon its base so that the centrifugal force will cause the paint to pass through the wire cloth into an annular trough or receptacle as hereinafter more particularly explained.

The drawing represents a sectional perspective view of my paint strainer.

Heretofore it has been the custom among painters to strain the paint, which they are going to use, through a receptacle provided with a gauze or cloth bottom. This was necessarily very slow and it is with a view of overcoming this slow straining of the paint and to provide means whereby it may be as effectually but more quickly done that my invention is chiefly designed.

A, is a cylindrical casing the cylindrical portion of which is comprised of wire mesh or cloth, A'. The coarseness of the mesh is regulated according to the thickness of the mixed paint, which it is desired to strain.

B, is the bottom, which has an annular groove, *b*, made around it below which the wire mesh extends.

C, is a wire which is bound around the wire cloth so as to hold it securely in the groove.

D, is an inwardly and downwardly turned U-shaped rim to which is bound the top of the wire mesh cylinder by the retaining wire, *e*, which encircles the wire mesh above the strengthening rim, *d*, around the groove, *d'*.

F, is an outer cylindrical casing which has an annular U-shaped trough formed around it at the bottom and is provided with a cover, G, into which is fitted the funnel, H.

f', is a spout extending from the bottom of the annular U-shaped trough, *f*.

I, is a beveled spur pinion secured to the center of the bottom, B, of the wire cloth cylinder. The beveled spur pinion, I, is secured on the top of the spindle, J, which is journaled in the standard, K.

L, is a beveled spur wheel, which is secured on the spindle, *l*, one end of which is journaled in the standard, K, and the other end in one of the supporting standards, M.

O, is a crank handle which is secured on the end of the spindle, *l*, and is designed to rotate it.

P, is a scraper, the lower end of which is revolubly secured in the center of the bottom, B, and the upper end of which extends and is held rigidly in the socket, *p*. This scraper is for simplicity and cheapness made of wire but it will of course be understood that it might be made in the form of a brush. The scraper, P, it will be noticed is made in the form of a spiral, the convolutions of which extend around and against the cylindrical wire cloth. This scraper, P, is designed to keep the skins in mixed paint from accumulating on the wire cloth.

Having now described the principal parts involved in my invention I shall briefly describe the operation. The mixed paint is poured in through the funnel, H, until it partially fills the wire cloth cylinder. When the handle is rotated the cylinder is caused to revolve and the paint is caused by the centrifugal force of the rotation of the wire cloth cylinder to assume a concave form as indicated by heavy dotted lines so that it extends up on the cylindrical wire cloth. The centrifugal force exerted causes the paint also to rotate and have a tendency to fly off at the periphery, which it is permitted to do through the wire cloth through which it drops into the annular U-shaped trough, *f*, from which it may be withdrawn through the spout, *f'*.

Although I show no means except the wire cloth cylinder for effecting the rotation of the paint it will of course be understood that radial beaters might be employed within the wire cloth cylinder but from practical experience I find that the rotation of the cylinder is sufficient to produce the best results.

In constructing my trough, U, it will be

necessary to have a slight downward incline toward the spout, *f'*. It will also be seen that on account of the way in which the spiral scraper is placed the handle will have to be rotated in the direction indicated by arrow in order to keep the skins down.

I am aware that it is not new to provide a cylindrical casing, the cylindrical portion of which is formed of a wire cloth or similar material. I am also aware that the funnel has been used to pour liquid into the cylindrical casing and also that an annular trough with a spout has been used to carry away the liquid in other centrifugal machines, but I do not know of any machine suitable for the straining of mixed paint constructed in the manner described and shown and hereinafter pointed out in the claim.

It will be noticed in the construction of my centrifugal paint strainer that the funnel, H, cylindrical casing A, and trough and outer casing F, may be readily removed from the stand M, so that each of the separate parts may be readily cleansed.

What I claim as my invention is—

The combination with the cylindrical casing, A, having a woven wire cloth, cylindrical portion A', secured to the bottom B, and to the U-shaped rim D, a spindle J, and socket standard K as specified, of the spiral scraper P, located within the cylindrical casing, held securely at the top and bottom so as to hold it stationary and having its convolutions designed to press against the interior of the woven wire cloth substantially as and for the purpose specified.

CHARLES JOHN McLENNAN.

Witnesses:

F. L. MIDDLETON,

WM. F. HALL.